

*A Sketch of the*  
*Autumnal Fever, as it*  
*prevailed in the*  
*Town of Fredericksburg, Va<sup>r</sup>. 1821*  
*being an*  
*Inaugural Dissertation,*  
*presented to*  
*The Provost, and Medical Faculty*  
*of the*  
*University of Pennsylvania,*  
*for the degree of*  
*M. D.*  
*by James Crooke.*  
*M.D. 18th 7*  
*Ms. Lincoln*  
*Nov<sup>r</sup>. 14th 1821.*



Custom has generally influenced the candidate for a Medical degree, to select some disease to which the human frame is liable; and in the usual form adopted by medical writers, to give the cause, symptoms, prophylactics, and cure.

When we consider the very limited means of personal observation, that present themselves to the student of medicine, especially in country situations, (and the greater number of those who attend the Medical Lectures, are of this description;) it must be obvious, that their ideas on the subject are necessarily drawn from the writings of others; and when we recollect, that in the various authors (who ~~have~~ write even on the same diseases), there are a number of apparently contradictory statements; it cannot be a matter of astonishment, that most of the dissertations presented under those disadvantages, should be crude, and indigested; or at best, but bad compilations -

Actuated by those considerations, I have endeavoured in the present sketch, to give an account

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of some things which fall under my own immediate  
= observation, and trust that the known liberality  
of the Faculty, will excuse the imperfections they  
may meet with.

As my observations were principally  
made in the town, and neighbourhood, of the de-  
= richsburg, Virginia; I shall endeavour to give a con-  
= cise view of its situation &c. &c.

The town of Fredericksburg is situated  
on the south bank of the Rappahannock River,  
about one mile below the head of tide water; the tide  
runs about two or four feet at high water; influence  
considerably, however, by the direction of the wind: The  
most thickly inhabited part is considerably removed  
from the water, so that when the tide retires, it  
leaves a large surface exposed; chiefly of dark mud  
in many places mixed with the filth thrown out  
from our Lots, which undergoing the putrefactive  
process, frequently emits an effluvia of a very offen-  
= sive character; in addition to this, the carcasses of

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many of our domestic animals, (which die naturally,  
or are destroyed by Law,) are, from the defective state  
of our police, permitted to remain exposed along  
the shore, and combined with the cause before men-  
tioned, renders a residence near the River, very disa-  
-agreeable: Towards the Northwest of the Town, and in  
some places, even within its limits, a range of ponds,  
(produced originally, by a removal of the Earth, for  
the purpose of Brick making) stretch across, from with-  
-in a few hundred yards of the River, in a Westerly  
direction, until they fall in with a large, marshy  
strip of Land, the breadth of which, is about, from  
fifty to eighty yards, and which forms the western,  
and southern boundary of the Town: Through this  
tract runs a small stream, which unites itself into  
another at the lower extremity of the place, and with  
it discharges into the River about a quarter of a mile  
below the Town: This low piece of Land extends itself  
about a mile beyond the upper limits of the Town,  
and meets with the River, which makes a consider-

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able bend to the west, in that situation: It is the  
opinion of many of our most respectable, and best in-  
formed citizens, that this strip of Land once formed  
the bed of a branch of the River; and that the posi-  
tion now occupied by the Town, was originally an  
Island:

Between the first and middle of June, 1821,  
vast numbers of white, fuzzy Caterpillars began to  
make their appearance in our gardens, and among  
our Fruit trees; and committed great ravages, par-  
ticularly among the Cabbages. They remained in  
large numbers, for about a fortnight, or three weeks,  
when they partially disappeared, and did not a-  
gain return in full strength, until the month of  
August, when their numbers were considerably aug-  
mented; and a consequent destruction of almost ev-  
ery species of vegetation ensued: Our streets are de-  
corated on each side, with stately rows of Lombardy  
Poplars, these they soon seized on, and in a few weeks  
completely defoliated: This bug continued with us

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about the same length of time as the former, and  
when about to undergo the change to the state of  
Auricles, became extremely troublesome, literally cov-  
ering our walls, and furniture.

About the latter end of August, mosquitoes  
made their appearance, in situations where before  
they were almost unknown, and became extremely  
annoying; children in the spinning, (notwithstanding  
every exertion to prevent it,) were found covered with blood  
=& from the bite of these insects, and in many instances,  
exhibited the appearance of the worst form of Malaria;  
this was particularly the case on the high lands, op-  
posite the Town, between the Petemar, and Rappahannock  
Rivers.

During the month of September, our gar-  
dens reassumed the appearance of Spring; the Tulars,  
and Fruit Trees, were filled with blossoms, and vege-  
tation of every description was in a flourishing state.

The neighbouring Counties, were visited during  
the Summer months, by a fever, of a remitting charac-

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ter, which proved in many instances fatal, and in all  
very unmanageable, and extremely embarrassing to the  
Physicians; many of them, hence, to whom we received  
communications on the subject, considered, and treat-  
ed it, as Typhus. The Town, however, continued in  
a remarkable manner exempt, even from the usual  
disorders of the season, until towards the end of Au-  
gust, and beginning of September, when the Bilious  
Fever, showed itself, and spread with a rapidity, al-  
most unexampled. As might have been expected,  
it made its first appearance, in situations bordering  
on the places before described, more especially to  
the Northwest; and soon pervaded the greater part  
of the Town; the entire however, equally removed  
from those sources of Fever, was exempted in a  
considerable degree from its influence.

The lower classes of whites, and the free people of  
colour, (who mostly inhabit the suburbs of the Town,  
and the lower situations about the banks of the river)  
were the most frequent subjects of the disease; and as

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they depend altogether on the students for assistance,  
my slender observations are derived from that source,  
principally— Frequent instances fell under our notice  
of families, in which, not more than two, out of six, or  
seven, were sufficiently well to attend the balance; and  
in some few cases, the whole family were confused, and  
totally unable to render each other any assistance  
whatever.

This fever, which was so extensive in its progress  
was, as before remarked, of a bilious character, but ex-  
tremely variable in its form; assuming nearly all  
the shapes, described by writers on fevers of low, malarial  
situations: In some, the double tertian (so ably des-  
cribed by Doct. Clegheon, in his account of the disease  
of Minorca,) manifested itself, with a chill (sometimes  
slight, and at others, putting on the form of genuine  
Ague) every afternoon, coming on at various periods  
from 12 O'Clock A.M. to 6 P.M. and terminating  
with sweat, sometime in the night, and a complete  
intermission each forenoon: In others, the fever, more

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its appearance, with the same symptoms in the afternoon; and after running its usual course, sometimes terminating in perspiration; but more generally the skin remained bound, the cool; and in place of the morning intermission, it rose again with slight chilliness, (commonly about eight o'clock) and continued with violence until late in the afternoon, when a profuse perspiration terminated the paroxysm, and an intermission followed, which continued through the night, and until that period ~~on~~ the next day at which it had made its appearance on the first.

These were the chief forms, (particularly the latter) which it assumed; but the anomalous types (if they can properly be called types) were very various. - We sometimes had the ague or chill at dusk, succeeded by fever, ~~and~~ terminating in sweat, before morning, and the apyrexia continuing through the day. In some the whole force of the fever was thrown on the bowels; shewing itself in Cholera morbus, with vast evacuations of bilious matter; but

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little increase of heat on the surface, or of force in the circulation; some of these seem to be of a continued form, for the evacuations continued without interval, though evidently, waned towards the evening. A remarkable case of this kind, was communicated to me by my preceptor; it occurred about ten or twelve miles from Stour in the person of Mr. L....; medical assistance was not called for in time, and the case terminated fatally, on the eleventh day. I shall take this opportunity of remarking that, although the vomiting had continued, in a most distressing degree, until a short period before his death, it was completely checked, by the administration of the Acalas Plumbe; the dose was two grains, every half hour, only three doses were given: this case however had advanced so far, and the patient was so much reduced, by the continual evacuations, that no hope was ever entertained of his recovery. In the case of Mr. L...., the only evidence we had of the existence of Fever,

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was slight mental derangement; the pulse in this case was always irritable, and very frequent (not full or hard) and continued so, with little variation until his recovery. In this case there was an interval of sanity from twelve or one o'clock every second night, until four or five o'clock the next afternoon, when delirium again came on, and continued through the night, and until twelve or one o'clock the next night; the wandering was however slight, and he always appeared rational, when his attention was particularly directed by the attendants, to any one subject: little perspiration was ever present in this case, until the disease yielded to the remedies employed. In one case which occurred late in the season, each paroxysm, was marked by a violent pain in the right temple, which was so severe as to ~~make~~<sup>make</sup> the patient, (a lady) scream out continually, the pain, as described, resembled very much that of Tré Doloureux. In one instance the force of the disease was entirely thrown on the stomach;

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this was a case of relapse, from a very severe at-  
tack of regular intermittents. In this case, Mr. P...  
the stomach rejected every thing that was taken into  
it, for four or five days, and for ten or twelve days  
longer, his diet consisted almost entirely of Teas-  
water, table Tea, and other light staps; most of which  
were rejected: not the slightest appearance of indisposi-  
tion shewed itself in the pulse, (which was natural)  
on the skin, in the Face, or any of the Viscera: This  
case terminated favourably.

Disturbing, and obstinate nausea, and efforts  
to vomit, attended, not a few of the cases, and in ma-  
ny, was present in a considerable degree, even in the  
intervals of the paroxysms. This symptom proceeded,  
in some cases, from an inversion of the peristaltic  
motion of the Stomach, throwing bilious matter  
of an offensive, and acrid character, into the Stomach.  
In others, though much straining attended, and  
a frequent rejection of Drinks; no bilious matter  
shewed itself; and the fluids came back almost

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unchanged: In the latter species, the Saliva and  
effluvia, had a temporary effect, in  
allaying irritation; but the former was removed  
only by large and repeated doses of Calomel.  
Blisters were tried, but in our hands, seemed of  
very doubtful efficacy in either species. This is,  
however, rather anticipating the practice in  
the fever, which will more properly follow an  
enlarged, and more particular description of  
the symptoms.

The symptoms which characterized  
the regular attacks of this fever, were such as  
usually present themselves, in Bilious remit-  
ting, and intermitting fevers, of our climate;  
There were, however, some peculiarities in many  
(perhaps in a majority,) of the cases that fell  
under our observation, which deserve notice:

The pain in the head was rather pecu-  
liar; it was very acute, attended with a sen-  
sation of throbbing, and tingling in the ears,

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but unattended, in a great measure by the  
diffusion of the Adulata of the Eye, and fulness  
of the countenance, which usually accompany  
determinations to the Head: Could we venture  
to assign a cause for this head-ache, indepen-  
-dent of Determination to the part; (which was  
undoubtedly present in some degree; as was  
evinced by the increase of it during the ex-  
-acerbation,) we would attribute it to a sym-  
-pathetic connexion between the Head, the  
stomach, and the Liver; but more particular-  
-ly between the former, and latter viscera.  
We are induced to form this opinion, from the  
fact, that in scarcely one instance, which we  
saw, was it removed entirely, (though in some  
degree mitigated, by Emetics, and Cathartics, and  
in one case by bleeding;) until there was procu-  
-red one, or more evacuations per ane, of a thick,  
viscid, black coloured matter; resembling, as nearly  
as possible, Tar, intermingled with Coffee grounds;

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very tenacious, and of little or no smell: When such  
evacuations were procured, the pain in the head,  
rarely returned, even during the pyrexia: This mat-  
ter, we are convinced, was generated in the Liver,  
for when dissolved in water, and dashed up, on  
the sides of a white vessel, it had the deep orange  
colour of Bile, and the last passages were fre-  
quently mixed with frothy green matter, and a  
substance evidently bilious, of the appearance,  
and consistence of the yolks of Eggs.

Another peculiarity of this disease, was a  
severe pain in the knees, and ancles, which atten-  
ded almost every case we noticed; and pains in  
the hips, extending down each of the lower exten-  
dities, even to the toes, and extremely torturing to the  
patient.

We have thus given a partial account of  
some of the most prominent forms, and symptoms  
of this Epidemic, (for it may strictly be styled so)  
and shall now proceed to mention, cursorily, the

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treatment, which we found most efficacious, in  
arresting its progress, and restoring health.

The first object we had in view, when we  
visited a patient, (even if the disease had existed  
for four or five days) was, to empty the stomach  
by an active Emetic, for this purpose we chose  
a combination of Ipecacuanha, and Tartar Emetic  
our object was not so much, to procure a discharge  
of bile, as, to dislodge a tough, viscid secretion,  
which appeared to line the inner coat of the  
stomach, and retarded very much the impres-  
sion of medicine; we also were impressed with a  
belief, that the agitation given to the whole system,  
and more especially to the Liver, (from its proxim-  
ity of situation) would favour our efforts in remov-  
ing off the vitiated secretions of this organ, by  
Cathartics; this remedy however, frequently brought  
off a large quantity of Bile, and after its emetic  
effect, (assisted by gruel, or chicken water,) it pro-  
duced three or four alvine evacuations. — The

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night, succeeding the exhibition of this remedy,  
a large dose of Calomel, (twenty grains to an  
adult) was administered ~~to~~ at bed time, con-  
-joined to an opiate, and its operation the succeed-  
-ing morning, assisted by Salop, Epsom Salts, or  
Castor Oil. If Pyrexia returned at the regular  
period, with little or no amelioration of the symp-  
-toms, a preparation of Epsom Salts, with Tartar  
Emetic, in such proportions as, not to excite nau-  
-sea, was given every two hours, with a view of  
keeping up the impression on the bowels, and to  
lessen the febrile action: we generally repeated  
the Calomel, and opium, at bed time, with some-  
-times six, or eight grains of Saund's powder, (or as  
would be more correct, the Oxide of Antimony, with  
Phosphate of Lime, used as a substitute) the ob-  
-ject in thus combining the Calomel, and opium,  
was, to procure rest, and prevent the Calomel from  
disturbing during the night; this second dose,  
generally procured a discharge of the black mate-

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= tea, before mentioned, and a suspension of most  
of the symptoms.

An infusion of Bark, combined with some  
aromatic, (generally the Clove,) was then adminis-  
= tered, during the interval of Fever, and when  
the Fever subsided, small doses of the Miltion, or  
Antimonial powder, were given at regular inter-  
= vals, until it disappeared; or what we preferred,  
small doses of some neutral salt, combined with  
Tartar Emetic; every two hours; this remedy, has  
the double advantage of determining to the sur-  
= face, and keeping up the impulsion on the bowels,  
which we considered of the first importance: if  
the Stomach bore the infusion well, and no unea-  
= siness of the head, followed its use, we ventured to  
complete the treatment by the Bark in substance  
combined with Serpentina. Forty grains of the for-  
= mu, and from five to ten of the latter, was as  
much as we could give with ease to our patients;  
this was repeated every hour, during the apyrexia.



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When the symptoms did not give way to the second dose of Calomel, we were not very solicitous to procure free evacuations, by auxiliaries to this remedy; but were satisfied if it produced one free evacuation, which was generally, as much as we expected from it; and therefore repeated it in doses of ten or twelve grains, every night, (until a strong impression was made on the disease) combined generally with an opiate, and Sams' powder; the form of the Opiate preferred, was the Dover's powder, and we gave it in large quantities.

Bleeding was not practised, except in some few cases of pregnant women, in which it seemed to have been of some advantage; in general, however, the symptoms indicated so strongly, the necessity of free purging, that we were apprehensive, if the Lancet was pushed, we should not have it in our power to carry the cathartic plan, to the extent we thought advisable. The Calomel, when exhibited in the way before mentioned, sometimes

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brought on gentle ptyalism; which we consider<sup>ed</sup>  
a fortunate occurrence; as most of the symptoms  
in that case, yielded without difficulty.

Plisters were sometimes employed when the  
disease first appeared, but our expectations were  
so ill answered by them, that we did not resort  
much to them afterwards.

A symptom which attended most of the ca-  
ses, and which was extremely distressing, was an  
intense burning sensation about the stomach, and  
in some instances, pervaded the whole abdomen;

We attributed this distressing heat, not only to  
the acrid quality of the biliary secretions, (which  
was, however, no doubt, the chief agent,) but also  
to the vitiated secretions from the stomach, and  
intestines; the functions of which were much de-  
ranged: The active Cathartics seldom failed to  
alluviate this symptom; and it was this success  
that led us to use them with so free a hand,  
and to which we attributed our success in the ma-

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management of the disease.

The Prussian Bark, a remedy deservedly celebrated, for its qualities, in the treatment of Fevers; was administered to a great extent, (by some of the medical gentlemen of the Town) from the very commencement of the disease. What success it met with in their hands, we had no opportunity of acquainting ourselves, by personal observation; in our practice however, much caution was necessary, to guard against its bad effects, when administered before the system was sufficiently prepared to receive it; in several cases in which we employed it early, the symptoms, on the return of the Fever, were much aggravated; particularly the head-ache, and burning sensation, (before mentioned) accompanied with great restlessness, and anxiety; and although in the first onset which occurred, we continued its use, we were compelled frequently to throw in Cathartics; these cases were protracted, and tedious. We were led to the early exhibition of this article, from the confidence with which

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it is recommended, by Clegdon, and other celebrated  
writers, who direct it to be given, after the use of one  
or two active Cathartics; indeed, as soon as a complete  
intermission shows itself.

In the cases of children; after we had sufficient-  
ly evacuated, by Emetics, and Cathartics, we had generally  
to resort to the Fowler's Solution, of which we gave from  
three to five drops, (according to age) twice a day, and  
increased it gradually, until the system shewed it-  
self to be completely under its influence; we generally  
found this practice successful.

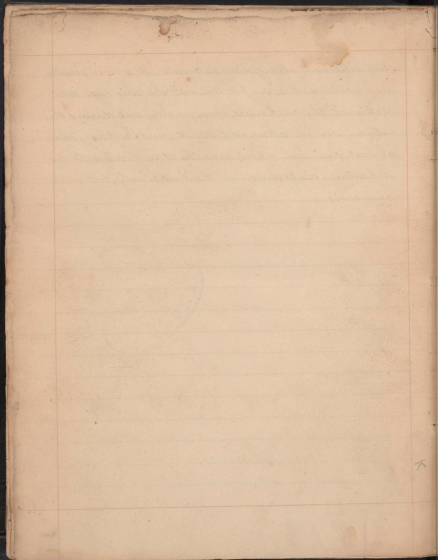
Before closing this subject, we must remark,  
that most of our convalescents, who ventured out ear-  
ly, (altho' the season appeared pleasant) had relapses,  
some of them gave us considerable trouble; one particu-  
larly, (a son of an Eastern Captain) who had been treat-  
ed as above, and gave us hopes of a speedy recovery,  
relapsed after taking a short ride in a close carriage,  
and although we succeeded in getting the system  
completely under the mercurial influence, the fever

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still returned at regular intervals, (it was originally  
and continued a simple tertian.) In this case, we  
continued the calomel, occasionally, and during the  
intermission we alternated, Bark, and Sulphur, when  
at last saw him, which was the day previous to my  
departure, (the 28th October) he was slowly, but surely  
recovering.





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